

CLAIMS

What is claimed is:

- 1 1. A composition comprising an isolated bacterium belonging to the genus *Dietzia* and deposited with the American Type Culture Collection as Accession Number PTA-4125.
- 1 2. The composition of claim 1, further comprising an animal feed.
- 1 3. The composition of claim 2, wherein the animal feed is selected from the group consisting of grain, hay, straw, silage, cornstalks, corn, corn meal, corn glutenmeal, soybean meal, soy flour, soybean mill feed, cottonseed hulls, oats, barley, hominy, cereal brans, rice mill by-product and mixtures thereof.
- 1 4. The composition of claim 1, further comprising a feed additive.
- 1 5. The composition of claim 4, wherein the feed additive is selected from the group consisting of vitamins, minerals, protein supplements, drugs, and mixtures thereof.
- 1 6. The composition of claim 1, wherein the composition is incorporated into a dosage form selected from the group consisting of tablets, drenches, boluses, and capsules.
- 1 7. The composition of claim 6, wherein the composition is incorporated into a tablet and further wherein the tablet further comprises a base, a disintegrator, an absorbent, a binder and a lubricant.
- 1 8. A method for treating Johne's disease, comprising administering to a mammal the feed composition of claim 1.

- 1 9. The method of claim 8, wherein the mammal is a bovine.
- 1 10. The method of claim 8, wherein the method comprises oral
2 administration of the feed composition.
- 1 11. A composition comprising a pharmacologically active dose of
2 an isolated bacterium belonging to the genus *Dietzia* and deposited with the
3 American Type Culture Collection as Accession Number PTA-4125, an active
4 fragment thereof, a protein secreted therefrom, or combinations thereof.
- 1 12. The composition of claim 11, wherein the composition is
2 incorporated into a dosage form selected from the group consisting of tablets,
3 drenches, boluses, and capsules.
- 1 13. A method of treating Johne's disease, comprising
2 administering to a mammal the composition of claim 11.
- 1 14. The method of claim 13, wherein the mammal is a bovine.
- 1 15. The method of claim 13, wherein the method comprises oral
2 administration of the composition.
- 1 16. A feed composition, comprising a bacterium of the genus
2 *Dietzia* and an animal feed.
- 1 17. The feed composition of claim 16, wherein the animal feed is
2 selected from the group consisting of grain, hay, straw, silage, cornstalks, corn,
3 corn meal, corn glutenmeal, soybean meal, soy flour, soybean mill feed, cottonseed
4 hulls, oats, barley, hominy, cereal brans, rice mill by-product and mixtures thereof.
- 1 18. A method of treating Johne's disease, comprising
2 administering to a mammal the feed composition of claim 16.
- 1 19. The method of claim 18, wherein the mammal is a bovine.

1 20. The method of claim 19, wherein the method comprises oral
2 administration of the composition.

1 21. A feed additive, comprising a bacterium of the genus *Dietzia*
2 and a feed additive.

1 22. The feed additive of claim 21, wherein the feed additive is
2 selected from the group consisting of vitamins, minerals, protein supplements,
3 drugs, and mixtures thereof.

1 23. A method of treating Johne's disease, comprising
2 administering to a mammal the feed additive of claim 21.

1 24. The method of claim 23, wherein the mammal is a bovine.

1 25. The method of claim 23, wherein the method comprises oral
2 administration of the composition.

1 26. A composition, comprising a pharmacologically active dose of
2 a bacterium of the genus *Dietzia*, an active fragment thereof, a protein secreted
3 therefrom, or combinations thereof, such that the pharmacologically active dose is
4 capable of reducing or preventing the symptoms of a disease or syndrome whose
5 causative agent is a mycobacterium.

1 27. A method of treating a disease or syndrome whose causative
2 agent is a mycobacterium by administering to a mammal the composition of claim
3 26.

1 28. The method of claim 27, wherein the mammal is a bovine.

1 29. The method of claim 27, wherein the method comprises oral
2 administration of the composition.

1 30. A method of culturing bacteria belonging to the genus *Dietzia*
2 comprising culturing the bacteria in a medium comprising Tryptose soy broth.